

Method of Test For
**DETERMINATION OF THE MOISTURE CONTENT OF ASPHALTIC CONCRETE
(LOOSE MIX)**

DOTD DESIGNATION: TR 319-14

Scope

1. This method of test describes the procedures to be used in obtaining, preparing, and testing loose asphaltic concrete mix for determination of its moisture content, as well as the calculations required to express this moisture content, as a percentage of the mass of the asphaltic concrete.
2. Reference Documents
 - A. AASHTO T 329 – Moisture Content of Hot Mix Asphalt (HMA) by Oven Method
 - B. DOTD TR 3xx – Asphalt Volumetric Calculations

Apparatus

1. AASHTO T329, Section 4-APPARATUS with the following modifications
 - A. Transport Container (bucket)– approximately four-liter (one gallon) can with bail and lid, capable of maintaining a tight seal in order to prevent moisture loss.
 - B. Sample Container (Pan) – shall be large enough to hold the transport container, lid, bail, and sampled material spread evenly on the bottom of the container.
 - C. Miscellaneous equipment – gloves, goggles, safety equipment, etc.
2. Forms – Moisture Content of Asphaltic Concrete, DOTD Form No. 03-22-0734

Health Precautions

Proper precautions are to be taken whenever hot materials or equipment must be handled. Use container holder or thermal gloves while handling hot containers. Wear eye protection while stirring and weighing heated materials due to possible shattering of particles. Dry contaminated materials under a vent to prevent exposure to fumes.

Sample

1. A representative sample of 5-6 kg (12-15 lb) shall be taken from two separate locations in the haul truck immediately after the haul truck has been loaded.
2. Obtain the sample from the haul truck as follows:
 - a. Select one of the two areas of the haul truck from which to obtain the sample. Remove the top 75 – 150 mm (3 - 6 in.) of material, do not disturb the material. From this prepared area remove enough material to fill approximately one half of the can and place the sample in the bucket. Immediately place the lid loosely on the can.
 - b. Select a second area of the haul truck and repeat step 1, completely filling the can. Tightly secure the lid.

Procedure

1. Use AASHTO T329, Section 7-PROCEDURE with the following modifications:
 - A. Prior to obtaining sample from the haul truck, determine the mass of the

transport container, lid, and bail to the nearest gram.

- B. During step Procedure 7.2, also place transport container, lid, and bail into the sample container. Include the mass of the container, lid, and bail as part of the sample container for all calculations.

Note 1: *If the specified oven is not available at the plant laboratory, loosen or perforate the lid and transport the sample to the district laboratory prior to performing procedure.*

Note 2: *Notify the project engineer immediately when any moisture content exceeds the maximum allowed by specifications.*

Report

1. Report the total moisture content of the asphaltic concrete mix to the nearest 0.1%.

Normal Test Reporting Time

Normal test reporting time is 2 days.